AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 - EXPEDITED PROCEDURE

Serial Number: 09/541452

Filing Date: March 31, 2000 Title: INDUCTIVE COIL

INDUCTIVE COIL APPARATUS FOR BIO-MEDICAL TELEMETRY

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Amendments to the Claims

Please amend the claims as follows:

- 1. (Canceled)
- 2. (Previously Presented) The apparatus of claim 15, further including a flexible housing, where the flexible housing encases telemetry coil.
- 3-5. (Canceled)
- 6. (Previously Presented) The apparatus of claim 15, where the magnetically permeable material is made of a ferrite powder.
- 7. (Previously Presented)
- 8. (Previously Presented) The apparatus of claim 2, where the flexible housing is conformable to an irregular surface.
- 9. (Previously Presented) The apparatus of claim 2, where the flexible housing is constructed of an insulating material.
- 10. (Previously Presented) The apparatus of claim 2, where the flexible housing is constructed of a material, which retains a formed shape.
- 11. (Original) The apparatus of claim 10, where the material is polyimide.
- 12. (Canceled)

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13. (Currently Amended)

The apparatus of claim 2, further including:

a flexible housing;

a first telemetry coil; and

<u>a second telemetry coil</u>, where the first telemetry coil and the second telemetry coil are concentrically positioned in a common plane within the flexible housing.

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14. (Previously Presented) The apparatus of claim 2, further including a padded cover disposed over the flexible housing.

15. (Previously Presented) A telemetry coil for communicating with an implanted medical device, comprising: a plurality of loops of a conductive wire that define a predetermined outer dimension sufficient to allow communication between the telemetry coil and the medical device, where the predetermined outer dimension is a diameter in a range of fifteen (15) to forty-six (46) centimeters, where the plurality of loops of a conductive wire wound substantially in a common plane and concentrically around a central core, where the central core includes a magnetically permeable material, and where the loops are positioned around the central core to form a substantially constant gap between adjacent loops.

16 – 22. (Canceled)

23. (Previously Presented) An apparatus for communication with an implantable medical device, comprising:

a first and a second telemetry coil, where the first and the second telemetry coil include a predetermined outer dimension sufficient to allow communications between the first and the second telemetry coils and the implantable medical device where the first and the second telemetry coils include one or more loops of a conductive wire, and wherein the first telemetry coil and the second telemetry coil are concentrically planarly wound substantially in a common plane, where the conductive wire is wound around a core, where the conductive loops are positioned around the central core to form a substantially constant gap between adjacent loops,

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where the core is constructed of a magnetically permeable material that enhances flux density of the apparatus, where the magnetically permeable material includes a ferrite powder; and

a communication lead having a first end and a second end, where the first end is communicatively coupled to the first and the second telemetry coil and the second end adapted to be communicatively coupled to a medical device programmer.

- 24. (Previously Presented) The apparatus of claim 23, where the predetermined outer dimension is a diameter in a range of fifteen (15) to forty-six (46) centimeters.
- 25. (Previously Presented) The apparatus of claim 23, further comprising:
- a flexible housing, where the flexible housing encases the first and the second telemetry coil, where the flexible housing is conformable to an irregular surface.
- 26. (Previously Presented) The apparatus of claim 25, where the flexible housing is constructed of an insulating material.
- 27 29. (Canceled)
- 30. (Previously Presented) An apparatus for communication with an implanted medical device, comprising:
- a first and a second telemetry coil concentrically planarly wound substantially in a common plane and each adapted to inductively couple with the implanted medical device, where the second telemetry coil is constructed and arranged to operate at a different telemetry operational frequency than the first telemetry coil;

and

a communication lead having a first end and a second end, where the first end is communicatively coupled to the first and the second telemetry coil and the second end is adapted to be communicatively coupled to a medical device programmer.